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EXAMINER

RYMAN, DANIEL J

ART UNIT

PAPER NUMBER

2616

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/816,705

Applicant(s)

SUGIYAMA ET AL.

Examiner

Daniel J. Ryman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Examiner acknowledges Applicant's filing of an RCE on 27 October 2006.
2. Applicant's arguments filed 27 October 2006 have been fully considered but they are not persuasive. On pages 9-10 of the Response, Applicant asserts that Doshi fails to disclose "that router 220 includes logic to set a path having a first band that is at least two times a band necessary for transferring a VoIP packet in accordance with control by a call control apparatus." Examiner, respectfully, disagrees. As previously asserted, *any* path will have at least two times the band necessary for transferring a VoIP packet. For instance, Doshi discloses that a path "is comprised of a plurality of path links established over a plurality of physical layer router transport segments 225" (col. 4, lines 6-10). It is implicit that each physical link is capable of carrying more than a single IP packet at any given time, as suggested by the fact that each path carries multiple calls (col. 4, line 65-col. 5, line 6). Further, Doshi discloses that "[t]he capacity requirements over each network element, such as routers 220 and physical layer router transport segments 225 are virtually provisioned within available bandwidth capacity for delay sensitive traffic requirements" (col. 4, lines 32-40). This provisioning is done by a Virtual Provisioning Server by modifying routing weights (col. 5, lines 33-41). Thus, the Virtual Provisioning Server, which is, as broadly defined, a call control apparatus, provisions a router by setting a routing weight in the router. This routing weight sets a path in the router since the routing weights are used to determine a routing path. As such, Examiner maintains that Doshi discloses that router 220 includes logic to set a path (where the path is set through use of routing weights) having a first band that is at least two times a band necessary for transferring a VoIP packet (where any

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path has such a band) in accordance with control by a call control apparatus (where the Virtual Provisioning Server sets the routing weights).

3. On pages 10-11, Applicant asserts that Doshi does not set a new path since Doshi “merely provisions traffic over existing links.” However, this assertion assumes that a single path comprises a single link. This is not the case. Doshi discloses that a path “is comprised of a plurality of path links established over a plurality of physical layer router transport segments 225” (col. 4, lines 6-10). Thus, if a single link of a path changes, then the path is “a new path.” Examiner maintains that when Doshi sends traffic over different links in light of congestion or link failures, Doshi discloses that the traffic is sent over a “new path.”

4. In view of the foregoing, Examiner maintains that the claims are obvious in view of the cited prior art.

Claim Objections

5. Claim 10 is objected to because of the following informalities: in line 2, “with a first” should be “with the first” and, in line 3, “with a second” should be “with the second”.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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7. Claim 10 is rejected under 35 U.S.C. 102(e) as being anticipated by Doshi et al. (USPN 6,529,499), of record.

8. Regarding claim 10, Doshi discloses a router connected between a first voice network and a second voice network to implement voice communication between a telephone associated with the first voice network and a telephone associated with the second voice network (where ref. 220 is a router, see Fig. 1 and col. 4, lines 1-19, connected between a first voice network, ref. 210, and a second voice network, ref. 210, see Fig. 1 and col. 3, lines 16-24, to implement voice communication between a telephone associated with a first voice network and a telephone associated with a second voice network, see col. 3, lines 5-8, wherein “telephone gateway” teaches the use of telephones on the circuit networks), comprising: logic configured to set a path having a first band that is at least two times a band necessary for transferring a VoIP packet in accordance with control by a call control apparatus (col. 3, lines 43-67, where the virtual provisioning server, ref. 230, is a call control apparatus configured to set a path having a first band that is at least two times a band necessary for transferring a VoIP packet, see also col. 4, lines 28-44, and where any path has a “band at least two times a band necessary for transferring a VoIP packet” since a path consists of physical links that are capable of carrying multiple packets at any given time) thereby establishing a plurality of connections in said path (col. 4, line 65-col. 5, line 6, where each path has a band that is sufficient to support multiple connections).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-9 and 11-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doshi et al. (USPN 6,529,499), of record.

11. Regarding claims 1, 8, and 15, Doshi discloses an Internet telephone system for voice communication between a telephone subscribing to a first voice network and a telephone subscribing to a second voice network via a network using an Internet protocol (Fig. 1 and col. 3, lines 5-24), comprising: a plurality of routers (ref. 220) configured to use a switching technique (col. 4, lines 1-19); a first media gateway (ref. 215: packet circuit gateway, PCG) coupled to a first one of the plurality of routers and a first signaling transfer point (ref. 250: signaling gateway) connected to said first voice network (col. 2, line 46-col. 3, line 42); a second media gateway (ref. 215: packet circuit gateway, PCG) coupled to a second one of the plurality of routers and a second signaling transfer point (ref. 250: signaling gateway) connected to said second voice network (col. 2, line 46-col. 3, line 42); a path control unit (ref. 230: virtual provisioning server) configured to: determine whether a first path having a first band larger than a band necessary for transferring said VoIP packet between said first router and said second router exists (col. 3, lines 43-67, where the virtual provisioning server determines if a path between the first and second router exists, and where any path will have a band larger than a bank necessary for transferring a VoIP packet since a path comprises physical links which are capable of carrying multiple packets at any given time, see also col. 4, lines 28-44); and a packet control unit (ref. 250: signaling gateway) coupled to said path control unit (ref. 230: virtual provisioning server), configured to: instruct said first media gateway (ref. 215: packet circuit

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gateway, PCG) and said second media gateway (ref. 215: packet circuit gateway, PCG) to transfer VoIP packets via a path (Fig. 1 and col. 3, lines 43-61).

Doshi does not expressly disclose in the main embodiment that the routers are label switch routers; however, Doshi does disclose in another embodiment that the routers can be label switch routers since label switch routers are well known (col. 9, lines 54-64). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have the routers be label switch routers since label switch routers are well known.

Doshi does not expressly disclose in the main embodiment, when it is determined that the first path having the first band does not exist, setting a new path having a band that is equal to or more than double the band necessary for transferring the VoIP packet; or that the path set by said path control unit is used when another path cannot be found; however, Doshi discloses that, when label switch routers are used, the path control unit (ref. 230: virtual provisioning server) “maintains a knowledge base of possible multiple paths between pairs of” media gateways (ref. 215: packet circuit gateway, PCG) such that the packet control unit (ref. 250: signaling gateway) is instructed to admit a new call when there is capacity over any of the possible paths (col. 9, lines 54-56) where each path has a band that is sufficient to support multiple connections (col. 4, line 65-col. 5, line 6) such that each path would have a band equal to or more than a double band of said necessary band. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to set, when it is determined that there is not said path, by the path control unit, a new path having a band that is equal to or more than a double band of said necessary band and to use this path for the new connection since these steps are implemented when label switch routers are used.

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12. Regarding claims 2 and 9, Doshi does not expressly disclose that the new path has a band that is equal to or more than a hundred times of the first band; however, Doshi does disclose that each path can support multiple connections (col. 4, line 65-col. 5, line 6). It is generally considered to be within the ordinary skill in the art to adjust, vary, select, or optimize the numerical parameters or values of any system absent a showing of criticality in a particular recited value. The burden of showing criticality is on applicant. In re Mason, 87 F.2d 370, 32 USPQ 242 (CCPA 1937); Marconi Wireless Telegraph Co. v. U.S., 320 U.S. 1, 57 USPQ 471 (1943); In re Schneider, 148 F.2d 108, 65 USPQ 129 (CCPA 1945); In re Aller, 220 F.2d 454, 105 USPQ 233 (CCPA 1055); In re Saether, 492 F.2d 849, 181 USPQ 36 (CCPA 1974); In re Antonie, 559 F.2d 618, 195 USPQ 6 (CCPA 1977); In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Since Doshi discloses that the new path is equal to or more than a number of times of the first band, it would have been obvious to one of ordinary skill in the art at the time of the invention to have the band of the new path be equal to or greater than any number of times the first band, including a hundred, absent a showing of criticality by Applicant.

13. Regarding claim 3, Doshi implicitly discloses a route control unit configured to control said plurality of label switch routers (col. 9, lines 54-64) since Doshi discloses that the router is a label switch router (col. 9, lines 54-64) and Doshi discloses that the Signaling Gateways are capable of dictating which path out of a plurality of alternative paths a packet should traverse between the label switch routers (col. 9, lines 54-64). Thus, Doshi implicitly discloses a route control unit configured to control said plurality of label switch routers since a route control unit is necessary for a unit to designate a particular path through a network of label switch routers for a packet to traverse.

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14. Regarding claim 4, Doshi discloses that the route control unit is provided to each label switch router since each router is capable of routing a packet among a variety of paths (col. 9, lines 54-64, where “provided to” is a broad phrase which only requires that each label switch router is connected to a route control unit).

15. Regarding claim 5, Doshi discloses that the route control unit is connected to all label switch routers (col. 9, lines 54-64, where each label switch router would need to have access to the route control unit in order for the router control unit to specify a particular path through the network of label switch routers).

16. Regarding claim 6, Doshi discloses a path setting method of setting a path to which a band is ensured on a network using an Internet protocol connected between a first voice network and a second voice network to execute voice communication between a telephone associated with said first voice network and a telephone associated with said second voice network (Fig. 1 and col. 2, line 46-col. 4, line 19), comprising: determining whether a first path having a residual band larger than a first band necessary for transferring a VoIP packet between two edge routers (ref. 220) (col. 3, lines 43-67; col. 4, lines 28-44; and col. 4, line 58-48).

Doshi does not expressly disclose in the main embodiment that the routers are label switch routers; however, Doshi does disclose in another embodiment that the routers can be label switch routers since label switch routers are well known (col. 9, lines 54-64). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have the routers be label switch routers since label switch routers are well known.

Doshi also does not expressly disclose in the main embodiment, when it is determined that the first path does not exist, setting a new path having a band that is equal to or more than

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double the first band; however, Doshi further discloses that, when label switch routers are used, the path control unit (ref. 230: virtual provisioning server) “maintains a knowledge base of possible multiple paths between pairs of” media gateways (ref. 215: packet circuit gateway, PCG) such that the packet control unit (ref. 250: signaling gateway) is instructed to admit a new call when there is capacity over any of the possible paths (col. 9, lines 54-56) where each path has a band that is sufficient to support multiple connections (col. 4, line 65-col. 5, line 6) such that each path would have a band equal to or more than a double band of said necessary band. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to set, when it is determined that the first path does not exist, a new path having a band that is equal to or more than double the first band since this step is implemented when label switch routers are used.

17. Regarding claim 7, Doshi does not expressly disclose that the new path has a band that is equal to or more than a hundred times of the first band; however, Doshi does disclose that each path can support multiple connections (col. 4, line 65-col. 5, line 6). It is generally considered to be within the ordinary skill in the art to adjust, vary, select, or optimize the numerical parameters or values of any system absent a showing of criticality in a particular recited value. The burden of showing criticality is on applicant. In re Mason, 87 F.2d 370, 32 USPQ 242 (CCPA 1937); Marconi Wireless Telegraph Co. v. U.S., 320 U.S. 1, 57 USPQ 471 (1943); In re Schneider, 148 F.2d 108, 65 USPQ 129 (CCPA 1945); In re Aller, 220 F.2d 454, 105 USPQ 233 (CCPA 1055); In re Saether, 492 F.2d 849, 181 USPQ 36 (CCPA 1974); In re Antonie, 559 F.2d 618, 195 USPQ 6 (CCPA 1977); In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Since Doshi discloses that the new path has a band that is equal to or more than a number of times of the first

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band, it would have been obvious to one of ordinary skill in the art at the time of the invention to have the band of the new path be equal to or greater than any number of times the first band, including a hundred, absent a showing of criticality by Applicant.

18. Regarding claim 11, Doshi does not expressly disclose that the path has a band that is equal to or more than a hundred times of the first band; however, Doshi does disclose that each path can support multiple connections (col. 4, line 65-col. 5, line 6). It is generally considered to be within the ordinary skill in the art to adjust, vary, select, or optimize the numerical parameters or values of any system absent a showing of criticality in a particular recited value. The burden of showing criticality is on applicant. In re Mason, 87 F.2d 370, 32 USPQ 242 (CCPA 1937); Marconi Wireless Telegraph Co. v. U.S., 320 U.S. 1, 57 USPQ 471 (1943); In re Schneider, 148 F.2d 108, 65 USPQ 129 (CCPA 1945); In re Aller, 220 F.2d 454, 105 USPQ 233 (CCPA 1055); In re Saether, 492 F.2d 849, 181 USPQ 36 (CCPA 1974); In re Antonie, 559 F.2d 618, 195 USPQ 6 (CCPA 1977); In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Since Doshi discloses that the path has a band of the path that is equal to or more than a number of times of the first band, it would have been obvious to one of ordinary skill in the art at the time of the invention to have the band of the path be equal to or greater than any number of times the first band, including a hundred, absent a showing of criticality by Applicant.

19. Regarding claim 12, Doshi does not expressly disclose in the main embodiment that the router is a label switch router; however, Doshi does disclose in another embodiment that the routers can be label switch routers since label switch routers are well known (col. 9, lines 54-64). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have the routers be label switch routers since label switch routers are well known.

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20. Regarding claim 13, incorporating the rejection of claims 1, 6, and 8, Doshi discloses all of the limitation of claim 13, as outlined in the rejection of claims 1, 6, and 8, except that the method is implemented using a computer program product. Examiner takes official notice that it is well known to implement a method using software since software is flexible. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement the method using a computer program product since software is flexible.

21. Regarding claim 14, Doshi does not expressly disclose that the new path has a band of a hundred times of the first band; however, Doshi does disclose that each path can support multiple connections (col. 4, line 65-col. 5, line 6). It is generally considered to be within the ordinary skill in the art to adjust, vary, select, or optimize the numerical parameters or values of any system absent a showing of criticality in a particular recited value. The burden of showing criticality is on applicant. In re Mason, 87 F.2d 370, 32 USPQ 242 (CCPA 1937); Marconi Wireless Telegraph Co. v. U.S., 320 U.S. 1, 57 USPQ 471 (1943); In re Schneider, 148 F.2d 108, 65 USPQ 129 (CCPA 1945); In re Aller, 220 F.2d 454, 105 USPQ 233 (CCPA 1055); In re Saether, 492 F.2d 849, 181 USPQ 36 (CCPA 1974); In re Antonie, 559 F.2d 618, 195 USPQ 6 (CCPA 1977); In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Since Doshi discloses that the new path has a band that is equal to or more than a number of times of the first band, it would have been obvious to one of ordinary skill in the art at the time of the invention to have the band be equal to or greater than any number of times the first band, including a hundred, absent a showing of criticality by Applicant.

22. Regarding claim 16, Doshi does not expressly disclose that the controller is further configured to: manage the use of labels associated with the label switching network such that

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transfer of a VoIP packet from the first device to the second device through at least one other device uses a single label. However, Doshi does disclose the use of labels to communicate between a pair of devices. Examiner takes official notice that it is well known in MPLS to establish a path between two devices using a single label since this facilitates communication between the two devices. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to manage the use of labels associated with the label switching network such that transfer of a VoIP packet from the first device to the second device through at least one other device uses a single label in order to facilitate communication between the two devices

23. Regarding claim 17, Doshi discloses that each of the first and second devices comprises an edge router and the other device comprises a core router (col. 9, lines 54-65).

24. Regarding claim 18, Doshi discloses that the path control unit is configured to store a maximum band settable between adjacent ones of the plurality of label switch routers (col. 4, lines 58-67, where the virtual provisioning server determines when a path does not “have the necessary bandwidth capacity to meet determined capacity requirements,” i.e. when the path has reached the maximum band settable between adjacent routers, see also col. 4, lines 28-40).

25. Regarding claim 19, Doshi discloses that the path control unit is further configured to store connection relationships between telephones in the first and second voice networks and the first and second media gateways (col. 5, lines 3-6, where the virtual provisioning server determines the maximum number of voice calls that can be simultaneously supported between two gateways such that the virtual provisioning server must know the number of calls, i.e. a

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connections relationship between telephones in the voice network and the gateways, in existence at any given time).

26. Regarding claim 20, Doshi discloses that the path control unit is further configured to store connection relationships between the first and second media gateways and the plurality of label switch routers (col. 5, lines 30-48, where the virtual provisioning server knows of the connection relationships between the gateways and the routers in order to be able to properly allocate routing weights to the system).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Ryman whose telephone number is (571)272-3152. The examiner can normally be reached on Mon.-Fri. 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571)272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Daniel J. Ryman

Examiner

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Daniel Ryman